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REDESCRIPTIONS OF *PHINTELLA TYPICA* AND *TELAMONIA BIFURCILINEA* (ARANEAE: SALTICIDAE)

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Synopsis

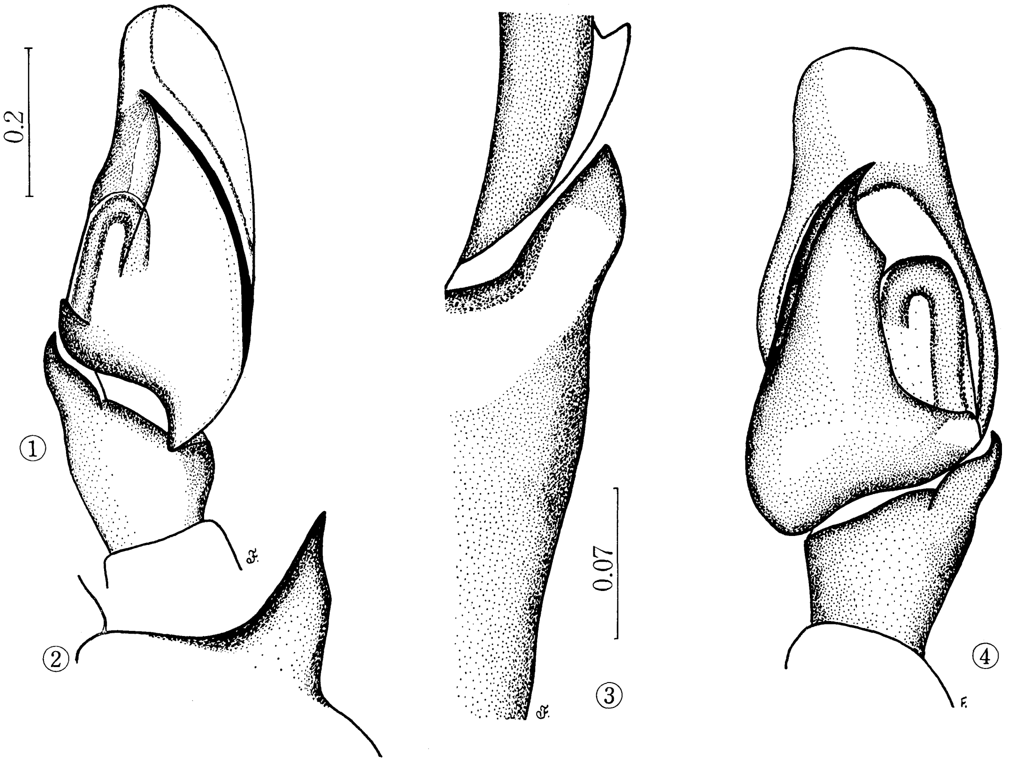
Prószyński, J. (Zakład Zoologii, IBS WSRP ul. Prusa 12, 08-100 Siedlce, Poland): Redescriptions of *Phintella typica* and *Telamonia bifurcilinea* (Araneae: Salticidae). *Acta arachnol.*, 32: 5-14 (1983).

Type specimens of *Telamonia bifurcilinea* Bösenberg et Strand, 1906, and *Phintella typica* Strand in Bösenberg et Strand, 1906, are compared with new specimens from Japan and a specific identity is established. Possible identity with *Ictidops pupus* Karsch, 1879, is also discussed. Accepting priority of name "*bifurcilinea*", the proper name of the species should be *Phintella bifurcilinea* (Bösenberg et Strand, 1906). The generic name *Phintella* should be applied to all related species, including Japanese *Jotus* and *Telamonia*.

Dr. M. Grasshoff, Forschungsinstitut Senckenberg, Frankfurt a. M., Federal Republic of Germany, has very kindly lent me the type specimens of *Phintella typica* and *Telamonia bifurcilinea*. Both types appeared conspecific and identical with fresh specimens from Japan, lent me by Professor T. Yaginuma. They may be also conspecific with specimens from North Viet Nam studied by Mr. M. Zabka (under press), where also a second, closely related species occurs.

There is a distinct similarity in shape of tibial apophysis of *Ph. bifurcilinea* and type specimen of *Ictidops pupus* Karsch, 1879: 85 (Prószyński, 1973: 113-114, ff. 44-46); also elongated chelicera falls into variation range of *Ph. bifurcilinea*. Difference lies in small femoral protuberance in *I. pupus*, which taxonomic value is, however, uncertain. Unfortunately other characters of *I. pupus* cannot be revised—the only specimen has been cut into pieces and mounted into parmanent microscopic slides by F. Dahl. No certain conclusions could be drawn at this stage and only future study on fauna of Japan can tell whether there is such a species, separate from *Ph. typica.*

The change of generic names used for related species by various authors and at different times (*Chira* Peckham, 1896; *Chrysilla* Thorell, 1887; *Icius* Simon, 1876; *Jotus* L. Koch, 1881; *Telamonia* Thorell, 1887) is unfortunately necessary because all of them are based on non-related type species (Prószyński, 1983). The genus *Phintella* should now contain the following Japanese species: *Ph. abnormis* (Bösenberg et Strand, 1906); *Ph. bifurcilinea* (Bösenberg et Strand, 1906); *Ph. castriesiana,* (Grube, 1861); *Ph. linea* (Karsch, 1879); *Ph. melloteei* (Simon. 1888); *Ph. versicolor* (C. L. Koch, 1846). Outside Japan the following species should be also included: *Ph. cavaleriei* (Schenkel, 1963) (Wesołowska, 1981b—China); *Ph. davidi* (Schenkel, 1963) (Wesołowska, 1981b—China); *Ph.*



Figs. 1-4. Palpal organ in *Phintella bifurcilinea.*
1, 4—ventral views.
2—tibial apophysis, lateral view.
3—same, dorsal view.
(1-3—paralectotype of *Telamonia bifurcilinea,* 4—Goto Isl. specimen.)

parvus (WESOŁOWSKA, 1981—N. Korea); *Ph. popovi* (PRÓSZYŃSKI, 1979—USSR); *Ph. tschekiangensis* (SCHENKEL, 1963) (WESOŁOWSKA, 1981b—China) and there apparently should be more related species in S. E. Asia. On the other hand *Phintella micans* CAPORIACCO, 1935: 201, is now *Chalcoscirtus micans* (CAPORIACCO) (PRÓSZYŃSKI, 1982—Karakorum, Mongolia).

Genus ***Phihtella*** STRAND in BÖSENBERG et STRAND, 1906

Type species: *Phintella bifurcilinea* (BÖSENBERG et STRAND, 1906) (syn. *Ph. typica* STRAND in BÖSENBERG et STRAND, 1906)

Males can be characterised by simple palpal organ, rather uniform within the genus and differing in details, with single tibial apophysis (Figs. 1-4). Epigyne with spherical simple spermathecae located posteriorly and short, rather broad copulatory canals; particularly characteristic double openings of the accessory glands, the second overlapping fertilization canals (Figs. 11-17). Colouration usually pale with grey indistinct linear pattern on the abdomen, but in some species there are exceptions from that.

Phintella bifurcilinea (BÖSENBERG et STRAND, 1906)

Synonyms and combinations: *Telamonia bifurcilinea* BÖSENBERG et STRAND, 1906: 331, ff. 153, 357 et auct. seq.

Phintella typica STRAND in BÖSENBERG et STRAND, 1906: 333

?? *Ictidops pupus* KARSCH, 1879: 85 (possible synonym)

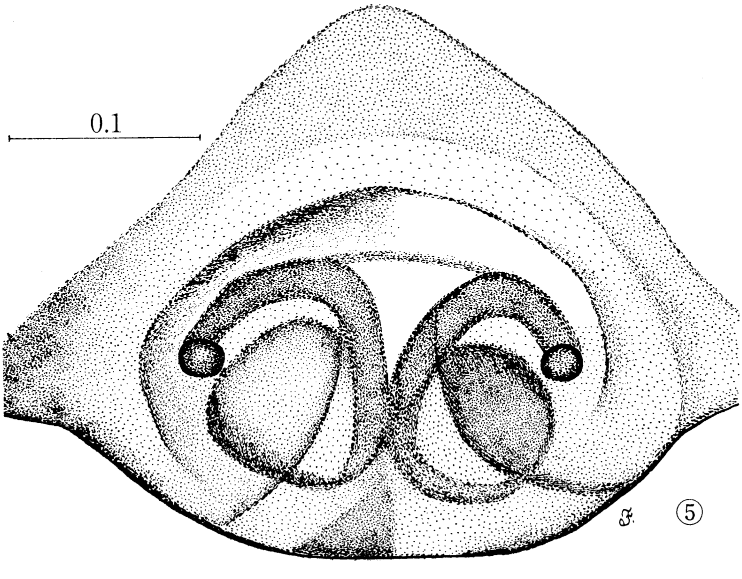
Icius pupus PRÓSZYŃSKI, 1973: 113-114, ff. 44-46.

Material: 1♀—Lectotype (new), ♂♂, ♀♀—Paralectotypes (new) "*Telamonia bifurcilinea* BÖSENBERG et STRAND, 55 Typus. Japan; Saga, DÖNITZ, 1882, Senckenbg. Mus. 2633, Frankfurt a. M.", 1♀—Holotype "*Phintella typica* STRAND, Typus. Japan, DÖNITZ, S. Senckenbg. Mus. 2384, Frankfurt a. M.", *Telamonia bifurcilinea* BÖSENBERG et STRAND, det. by T. YAGINUMA, Japan; Goto Islands and Inoko, Tottori, leg. M. OHNO, T. ARITA; "*Ictidops pupus* KARSCH, HILGENDORF, Japan, 2772, Type", 1♂ (in DAHL's microscopic slide)—Zool. Mus., Berlin.

Description of female

The striking external character of this species is the shape of anterior end of abdomen, forming two humps pointing forward and separated by a narrow slit like groove. Its anterior surface is covered with short and stout dark setae, appearing reddish on old specimens. Dorsal surface of abdomen dark, with single median white line along posterior 3/4 of abdomen, there are also lateral short light lines, diagonally, two on each side. Fig. 357A in BÖSENBERG et STRAND 1906, purporting to show a female of this species, presents typical abdominal pattern of male—with median light line along the whole length of abdomen, its anterior part divided by median darker-grey spot; such pattern has been found in females of this species from Viet Nam by Mr. M. ZABKA; there is, however, no such female among specimens studied by BÖSENBERG and STRAND themselves. On cephalothorax distinct transversal light band across eye field between eyes II and III, striking white line of scales along margins of carapace from above coxa I to IV. Coxa whitish except coxae IV which are olive blackish posteriorly. Chelicerae anteriorly dark, grey pigmented with white margin along median edge and tip.

Epigyne small, usually with little details visible in their external sculpture, which can be studied only when beam of light is rotated from various directions.



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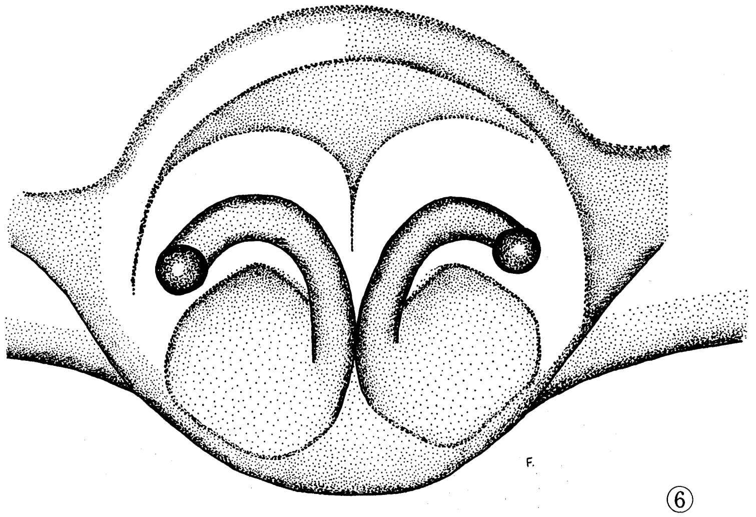

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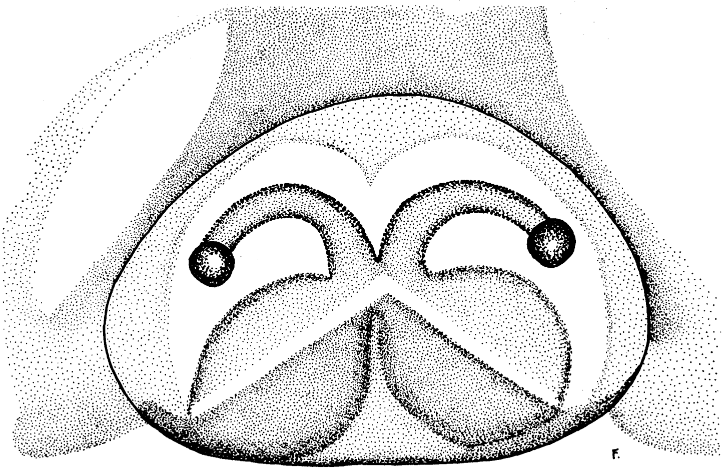

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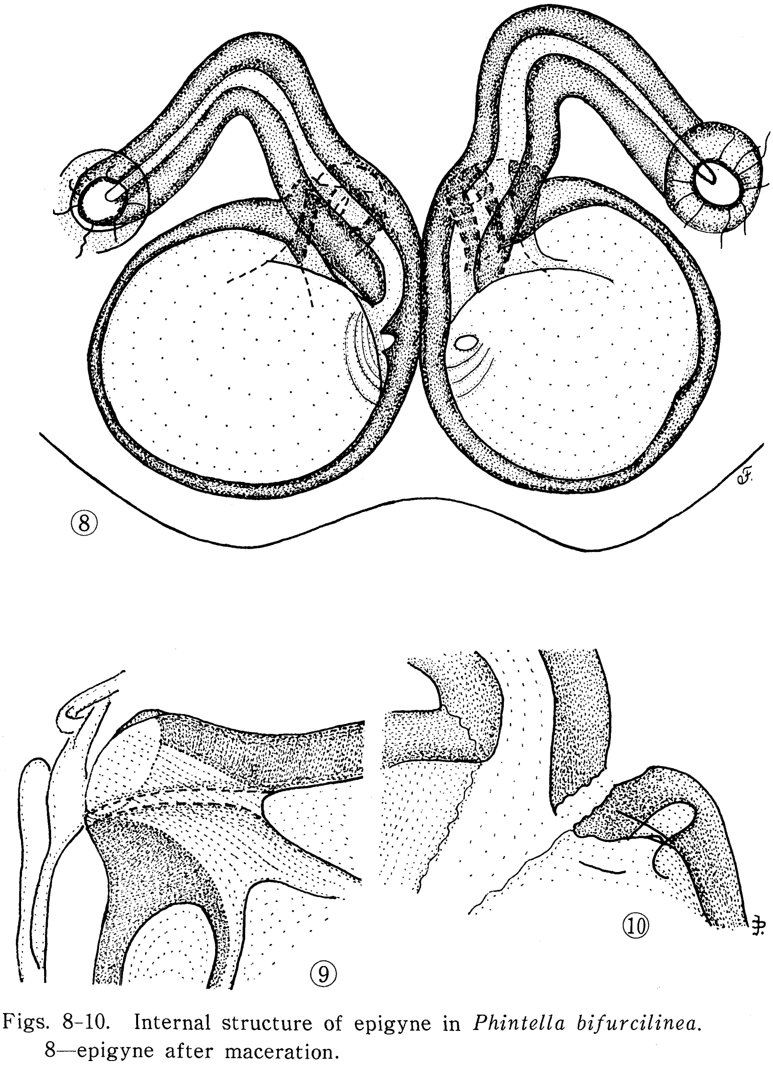
Figs. 5-7. Variation in epigyne of *Phintella bifurcilinea* (observed in light from various dirrections, contrasts increased).
5—lectotype of *Telamonia bifurcilinea.*
6—holotype of *Phintella typica.*
7—Goto Isl. specimen.

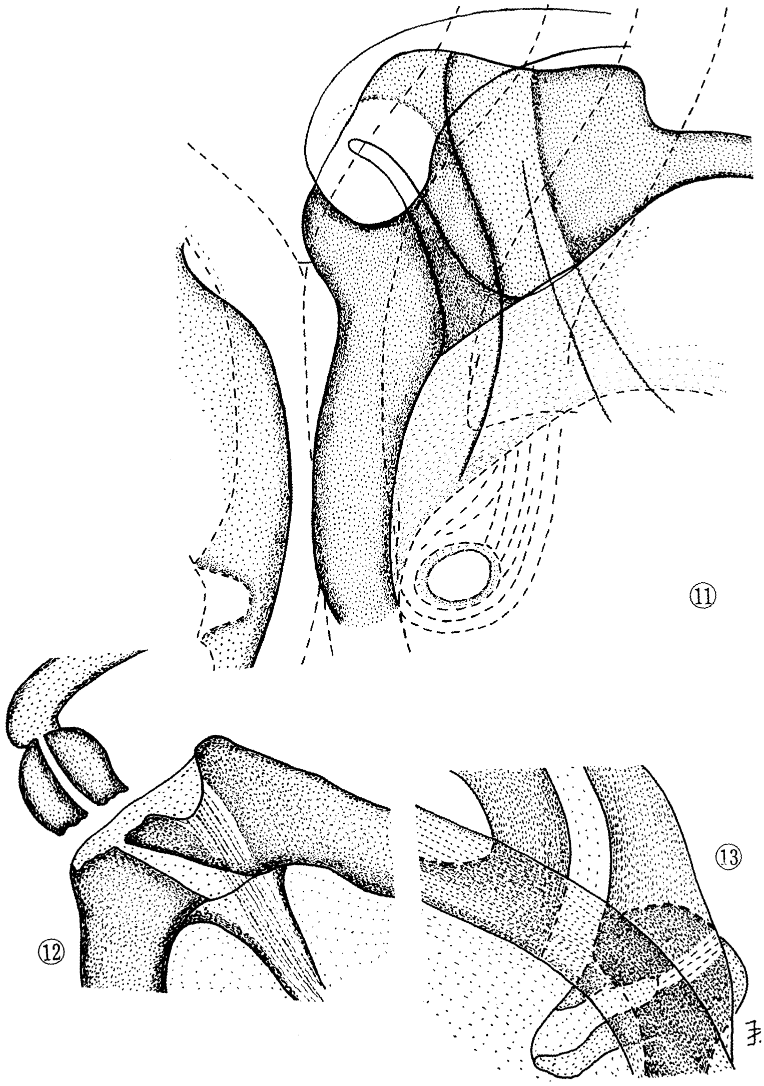
Most striking characters are parts of copulatory canals and spermathecae visible through the wall; as only part of them may be seen, they may be rather misleading. The general shape of epigynae seems to be variable (Figs. 5-7), which may be partly due to various light and shade conditions, as well as possible observation errors and different drawing techniques. The variation of epigyne in *Ph. bifurcilinea* calls for some attention in future studies of fresh material.

Peculiar character of females in *Phintella* is supplied by their double acces-



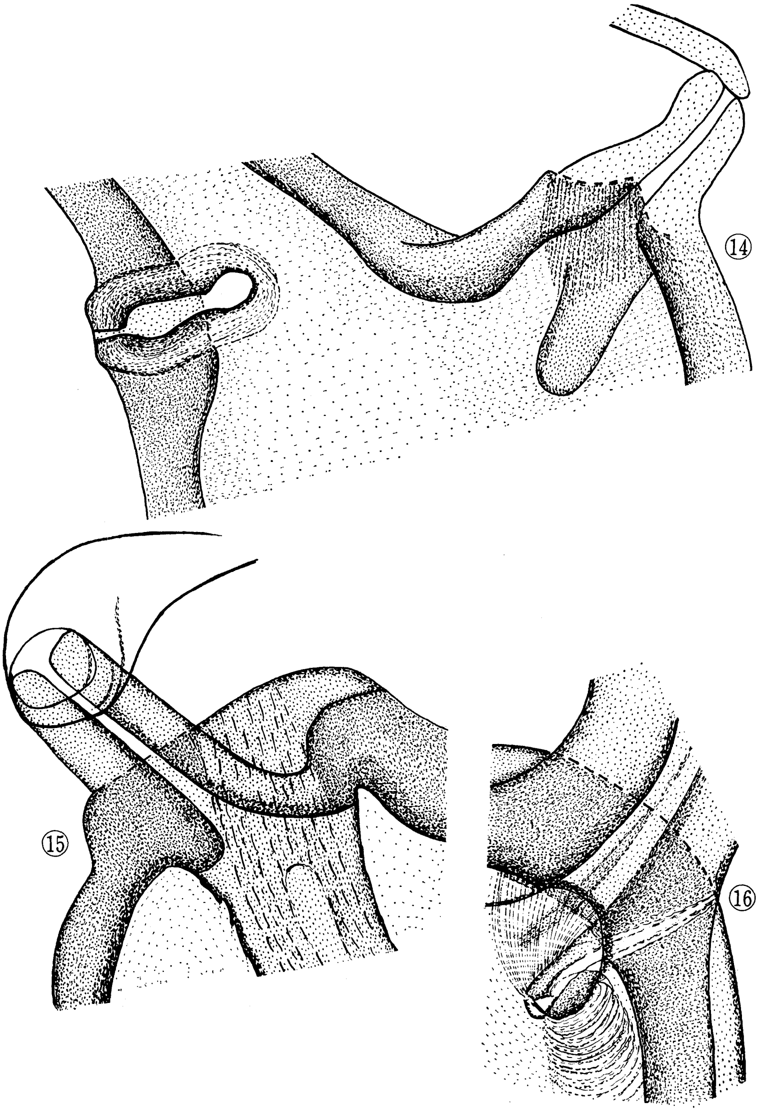
Figs. 8-10. Internal structure of epigyne in *Phintella bifurcilinea*.
8—epigyne after maceration.
9—second accessory gland opening—porous structure of the wall overlapping origin area of the fertilization canal.
10—first accessory gland opening—simple hole in the wall near copulatory canal entrance to spermathecae.

sory gland openings. The first is located in the spermathecal walls just near the opening of copulatory canals, somewhat posteriorly to it. It has a form of a simple small hole in the median wall of spermatheca, when the opening is seen



Figs. 11-13. Comparison of accessory gland openings in *Phintella bifurcilinea* (different specimen) (11) and *Phintella linea* (12-13).
11—second accessory gland.
12-13—second and first accessory gland.

from above it appears surrounded by several circular lines. The second opening is overlying the fertilization canal cone and the duct piercing the spermathecal wall to it. It apparently lies on slightly different level than the fertilization duct. By light microscope the spermathecal wall appears to be porous and there is



Figs. 14-16. Comparison of accessory glands, second and first, in *Phintella melloteei* (14) and *Ph. abnormis* (15-16).

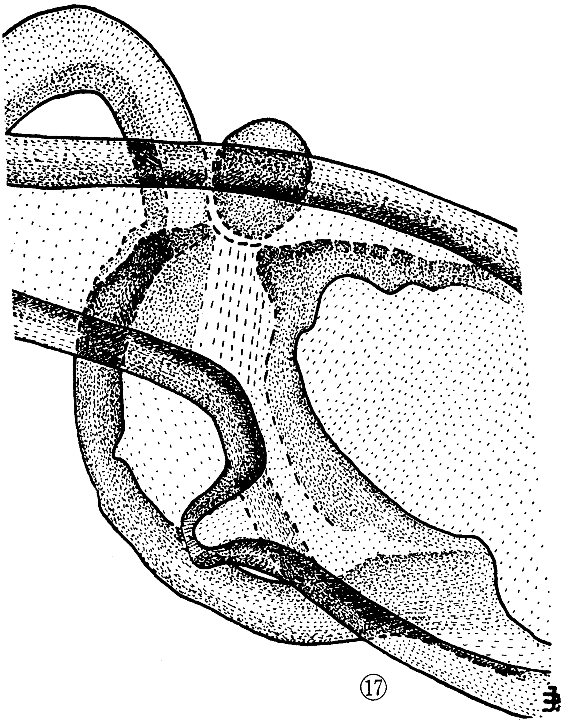


Fig. 17. First and second accessory glands in *Phintella versicolor*.

always some flattening or even shallow depression on the external surface of spermatheca in that place. As the structure of these two openings is so different, their functions may be different as well, but nothing more can be said yet about them. (Figs. 10-11). Comparative drawings of similar openings in related species of *Phintella* are shown in Figs. 12-17.

Description of male

The palpal organ is typical for the genus and it was of special importance to establish that males and females, which are somewhat unusual, are in fact conspecific. This was confirmed by appearance of both sexes in three different sets of specimens from Japan and also by personal statement of Professor T. YAGINUMA who has collected and observed them in the field. The shape of palpal organ is shown in Figs. 1-4. The species may be best separated from others related by their tibial apophysis—slightly bent, flattened dorso-ventrally, apically semitransparent. It appears similar to that in *Ictidops pupus* (*Icius p.*) see PRÓSZYŃSKI 1973: 113, ff. 44-46.

Externally there is a white line of setae across the eye field, just behind eyes II. Abdomen with longitudinal median whitish streak, split anteriorly by darker median line, margins of abdomen also light. Legs brownish or yellowish with whitish tarsi and metatarsi I-IV (in some specimens only median part of metatarsi is light). Pedipalpal femur devoid of protuberance. Chelicerae variably elongated—from slightly longer than usual to very long.

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